DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028125

Address: 333 Burma Road **Date Inspected:** 06-Aug-2012

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1930 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: CWI Present: Yes No As noted below. **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A

N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

Bridge No: 34-0006 **Component:** Tower / OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13W

This QA randomly observed ABF/JV qualified welder Lin E Yun #9344 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-F1200A. The joint being welded was 13W-PP122.5-W3.

During welding, ABF Quality Control (QC) Julian Razo was noted monitoring the welding parameters.

This QA randomly observed ABF/JV qualified welder Chau Tran #3139 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1072. The joint being welded was 13W-WK-S1.

During welding, ABF Quality Control (QC) Julian Razo was noted monitoring the welding parameters.

Electroslag Weld Repair Welding

This QA observed, at random intervals, ABF/JV qualified welder James Zhen #6001 continue performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW weld, location "Q" from face B.

Weld "Q" - Y= 6060mm, L= 250mm, W= 40mm, D= 20mm

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During welding, ABF Quality Control (QC) Bernard Docena was noted monitoring the welding parameters.

Electroslag Weld Excavation

This QA observed, at random intervals, ABF/JV welding personnel Xiao Jian Wan #9677 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW G" and was excavated on Face A at location:

Weld "G" - Y= 2800mm, L= 600mm, W= 68mm, D= 42mm

Both QA and QC performed Magnetic Particle Testing (MT) and photographed discovered indication. Indication was not removed before excavation reached maximum allowable depth. Additional excavation and repair will be required from Face B.

Magnetic Particle Testing

This QA Inspector performed Magnetic Particle Testing (MT) of completed weld repair excavation on tower ESW "Q". This QA observed one (1) rejectable indication at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Measurements for excavation are:

Weld "G" - Y = 2800mm, L = 600mm, W = 68mm, D = 42mm

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

Conversations were relevant to work performed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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Inspected By: Clifford,William Quality Assurance Inspector **Reviewed By:** Levell,Bill QA Reviewer